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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,590	12/01/2000	Joey K. Underwood	SCF-46	4493

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Timothy A. Cassidy
Dority & Manning, P.A.
Suite 15
700 E. North Street
Greenville, SC 29601

EXAMINER

RUDDOCK, ULA CORINNA

ART UNIT	PAPER NUMBER
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1771

5

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

keep in case

T.D-5

Office Action SummaryApplication No.
09/728,590Applicant(s)
Underwood et al.Examiner
Ula Corinna RuddockArt Unit
1771**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 1, 2000
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above, claim(s) 21-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to a piece of luggage comprised of a woven fabric, classified in class 442, subclass 181 .
 - II. Claims 21-26, drawn to a coated woven fabric , classified in class 442, subclass 148.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the fabric claims require that the fabric have a specific denier, ends/inch, picks/inch, and basis weight. The subcombination has separate utility such as a water resistant fabric for an article of clothing or for a ballistic resistant fabric.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Tim Cassidy on March 26, 2002, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).

Information Disclosure Statement

6. The information disclosure statement filed July 20, 2001, has been considered.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahle et al. (US 5,187,005) in view of Hargis et al. (US 5,674,951). Stahle et al. disclose a woven fabric, useful as luggage fabric (col 3, ln 59). It should be noted that all luggage, by definition, have at least one compartment for storing objects and have a closable opening for inserting and removing objects. Polymeric fibers can be polyamides such as nylons (col 11, ln 61-63). Furthermore, the yarns used to weave the fabric can be bulk continuous filaments (col 11, ln 57-60), which by definition include multifilament yarns. The warp yarns can range from about 10 to about 48 warp ends per inch with deniers ranging from about 200 to about 5000 and the fill yarns can range from about 8 to 30 pick ends per inch (col 11, ln 37-42). The basis weight of the woven luggage fabric can be about 200 g/m² or 5.89 oz/yd² (col 11, ln 50-51). The luggage fabric can be produced with a variety of weaves, patterns, and basis weights (col 11, ln 54-57). The woven fabric can be produced by a weaving process such as a basket weave (col 5, ln 33-36). The fabric is also coated with various coating compositions (col 57-60). Typically, luggage fabric can have a water-repellant

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material or a waterproof coating applied to either side of the fabric (col 12, ln 5-8). Stahle et al. fail to specifically disclose that the chemical composition doubled the abrasion resistance of the woven fabric and that the woven fabric has about 36 to about 46 picks per inch and a basis weight of from about 10 to about 15 oz/yd². Stahle et al. also fail to disclose that the woven fabric treated with the claimed chemical composition has an abrasion resistance of at least 4000, 6000, and 8000 cycles. Stahle et al. also fail to disclose that the chemical composition comprises a fluorocarbon polymer composition.

Hargis et al. (US 5,674,951) disclose abrasion-resistant coating compositions that can be used on luggage (col 12, ln 41-45). The compositions include highly fluorinated alkyl (abstract) polymers having high abrasion resistance (col 1, ln 39-43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the fluorinated alkyl composition of Hargis et al. on the woven luggage fabric of Stahle et al., motivated by the desire to obtain a woven fabric having increased abrasion resistance.

Furthermore, the coated woven luggage fabric as shown by the combination of Stahle et al. and Hargis et al. would result in a coated woven fabric having an abrasion resistance that is twice that of an uncoated woven fabric as taught by Applicant, because both fabrics are woven and are coated with a fluorinated alkyl composition that is the same as Applicant's invention. In addition, the presently claimed property of a coated fabric having an abrasion resistance that is twice that of

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an uncoated fabric would have been present once the fabric of Stahle et al. and Hargis et al. is provided. Note *In re Best*, 195, USPQ at 433, footnote 4 (CCPA 1977).

With regard to claims 5-7 and 12-14, the coated woven luggage fabric as shown by the combination of Stahle et al. and Hargis et al. would result in a coated woven fabric having an abrasion resistance of at least 4000, 6000, and 8000 cycles as taught by Applicant, because both fabrics are woven and are made of multifilament nylon yarns that are coated with a fluorinated alkyl composition that is the same as Applicant's invention. In addition, the presently claimed property of a coated woven fabric having an abrasion resistance of at least 4000, 6000, and 8000 cycles would have been present once the fabric of Stahle et al. and Hargis et al. is provided. Note *In re Best*, 195, USPQ at 433, footnote 4 (CCPA 1977).

With regards to claims 4, 8, and 15, Stahle et al. and Hargis et al. fail to disclose that the woven fabric has about 36 to about 46 picks per inch and a basis weight of from about 10 to about 15 oz/yd². It should be noted that increasing the picks per inch and the basis weight of a woven fabric are result effective variables. For example, increasing the basis weight of a woven fabric would directly effect the durability of the fabric. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the woven fabric have about 36 to about 46 picks per inch and a basis weight of from about 10 to about 15 oz/yd², since it has been held that discovering an optimum value of a result effective variable involves only

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routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the picks per inch and the basis weight of the fabric, motivated by the desire to obtain a woven fabric with increased durability and strength.

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stahle et al. (US 5,187,005) and Hargis et al. (US 5,674,951) as applied to claims 1-17 and 19 above, and further in view of Chakravarti et al. (US 5,116,682). Stahle et al. and Hargis et al. disclose the claimed invention except for the teaching that the chemical composition further comprises an emulsifier and a drying agent. Chakravarti et al. disclose a fluorocarbon polymer coating composition (abstract) for nylon yarns (col 2, ln 18) that includes emulsifiers (col 3, ln 26-28) and drying agents (col 3, ln 35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used both the emulsifiers and drying agents of Chakravarti et al. in the coating composition of Hargis et al. on the woven fabric of Stahle et al. motivated by the desire to obtain a coated woven fabric with little or no loss in fiber tensile properties such as strength and elongation.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stahle et al. (US 5,187,005) and Hargis et al. (US 5,674,951) as applied to claims 1-17 and 19 above, and further in view of Tieniber (US 3,650,880). Stahle et al. and Hargis et al. disclose the claimed invention except for the teaching that a water barrier layer, made of polyurethanes or urethanes, is

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applied to the woven fabric. Tieniber disclose flexible film-forming polyurethanes (col 1, ln 54-59) that can be applied to any type of textile fabric (col 2, ln 6-8). The polyurethane film layer makes the fabrics resistant to water (col 1, ln 19-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the polyurethane layer of Tieniber on the coated woven fabric of Stahle et al. and Hargis et al., motivated by the desire to obtain a woven luggage fabric having water resistant properties.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Caldwell (US 5,418,051) discloses a woven nylon fabric coated with a fluorochemical for increasing the abrasion resistance, but fails to disclose using the fabric in luggage. Effenberger et al. (US 4,610,918) disclose wear resistant fluoropolymer-containing coatings on a woven polyamide fabric, but fails to disclose using the fabric in luggage. Sahatijian et al. (US 4,943,473) disclose a woven polyamide fabric having a fluorocarbon coating, but fails to disclose using the fabric in luggage.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is (703) 305-0066. The Examiner can normally be reached Monday through Thursday from 6:30 AM to 5 PM.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor Terrel Morris can be reached at (703) 308-2414.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-2351.

Ula C. Ruddock *UCR*
Patent Examiner
Art Unit 1771
May 6, 2002

Ula Ruddock